

WHAT IS CLAIMED IS:

1. A data-line driver circuit for a current-programmed electro-luminescence display device, receiving at least one data current from an external signal source, and driving a pixel group of the electro-luminescence display device, the data-line driver circuit comprising:

a shift register having a periodic signal port and an enable port;

a first circuit group comprising at least one first circuit for storing current, the first circuit controlled by the periodic signal port to receive the data current;

and

a second circuit group comprising at least one second circuit for storing current, wherein the second circuit and the first circuit are connected in series, and the enable port controls the first circuit to duplicate and send the data current to the pixel group.

2. The data-line driver circuit of claim 1, wherein the data-line driver circuit is current source-type or current sink-type.

3. The data-line driver circuit of claim 2, wherein when the data-line driver circuit is current source-type, a current output port of the first circuit is coupled with a current input port of the second circuit, a current input port of the first circuit is coupled with the external signal source, and a current output port of the second circuit is coupled with the pixel group.

4. The data-line driver circuit of claim 2, wherein when the data-line driver circuit is current sink-type, a current input port of the first circuit is coupled with a current output port of the second circuit, a current output port of the first circuit is coupled with the external signal source, and a current input port of the
5 second circuit is coupled with the pixel group.

5. The data-line driver circuit of claim 1, wherein the first circuit group comprises a plurality of the first circuits and the second circuit group comprises a plurality of the second circuits, the first circuits are sequentially and
10 respectively controlled by a plurality of the periodic signal ports to sequentially and respectively receive a plurality of the data currents, and the second circuits are sequentially controlled by the enable port to sequentially and respectively duplicate the data currents from the first circuits and then sequentially and respectively send the data currents to the pixel group.

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6. A data-line driver circuit for a current-programmed electro-luminescence display device, receiving at least one data current from an external signal source, and driving a pixel group of the electro-luminescence display device, wherein the data-line driver circuit is current source-type, the
20 data-line driver circuit comprising:

- a shift register having a periodic signal port and an enable port;
- a first circuit group comprising at least one first circuit for storing current, the first circuit controlled by the periodic signal port to receive the data current from the external signal source; and

a second circuit group comprising at least one second circuit for storing current, wherein a current input port of the second circuit is coupled with a current output port of the first circuit, and the enable port controls the second circuit to duplicate the data current from the first circuit and send the data current to the pixel group.

7. The data-line driver circuit of claim 6, wherein the first circuit group comprises a plurality of the first circuits and the second circuit group comprises a plurality of the second circuits, the first circuits are sequentially and respectively controlled by a plurality of the periodic signal ports to sequentially and respectively receive a plurality of the data currents, and the second circuits are sequentially controlled by the enable port to sequentially and respectively duplicate the data currents from the first circuits and then sequentially and respectively send the data currents to the pixel group.

8. A data-line driver circuit for a current-programmed electro-luminescence display device, receiving at least one data current from an external signal source, and driving a pixel group of the electro-luminescence display device, wherein the data-line driver circuit is current sink-type, the data-line driver circuit comprising:

a shift register having a periodic signal port and an enable port;

a first circuit group comprising at least one first circuit for storing current, the first circuit controlled by the periodic signal port to send the data current to the external signal source; and

a second circuit group comprising at least one second circuit for storing current, wherein a current output port of the second circuit is coupled with a current input port of the first circuit, and the enable port controls the second circuit to duplicate the data current from the first circuit and receive the data
5 current from the pixel group.

9. The data-line driver circuit of claim 8, wherein the first circuit group comprises a plurality of the first circuits and the second circuit group comprising a plurality of the second circuits, the first circuits are sequentially and
10 respectively controlled by a plurality of the periodic signal ports to sequentially and respectively send a plurality of the data currents, and the second circuits are sequentially controlled by the enable port to sequentially and respectively duplicate the data currents from the first circuits and then sequentially and respectively receive the data currents from the pixel group.

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